CHECKLIST ENVIRONMENTAL ASSESSMENT

Project Name:	Dead Pine Clark
Proposed Implementation Date:	11/15/2011
Proponent:	Tricon Timber, P.O.Box 158, St.Regis, MT 59866 ph. (406) 492-4852
Location:	30, T13N, R3W and 26, 34, 35, 36, T13N, R4W
County:	Lewis & Clark
Trust:	SRS for sec 26, T13N, R4W, all others Common Schools

I. TYPE AND PURPOSE OF ACTION

Timber permit to salvage MPB killed Ponderosa Pine primarily, with some incidental amounts of green tree thinning to attempt to limit the potential for ongoing MPB mortality. Project would be conducted as a joint operation in conjunction with operations on the surrounding private lands (Sieben Ranch Co.).

II. PROJECT DEVELOPMENT

1. PUBLIC INVOLVEMENT, AGENCIES, GROUPS OR INDIVIDUALS CONTACTED:

Provide a brief chronology of the scoping and ongoing involvement for this project.

Discussions with John Baucus at the Sieben Ranch and their Forester Doug Mote. All the lands proposed are leased by the Sieben Ranch. Scoping included DNRC Hydrologist, Soil Scientist, Archaeologist and others in DNRC.

2. OTHER GOVERNMENTAL AGENCIES WITH JURISDICTION, LIST OF PERMITS NEEDED:

Eventually, a burn permit from L&C Co. would be needed for slash pile burning. One culvert installation on Ranch property was already completed (by the Ranch on their land) and the Conservation District did not require a “310” at that location. No other aspects of the project require permitting by another agency.

3. ALTERNATIVES CONSIDERED:

No action – Do not salvage the dead timber on the trust lands
Proposed action – Salvage dead MPB killed timber in a cooperative joint operation with the adjacent landowner/lessee’s operations on the intermingled lands.

- Approximately 303 potential salvage harvest acres
- Use of existing road systems, no new permanent road
- Cooperative weed management operations after the harvest, with the Ranch/lessee
- Approximately 2500 tons sawlog removal plus related pulp utilization as possible
- Negotiated prices, if permit is approved would be $1.75/ton for sawlog stumpage, $1.00/ton for pulp stumpage and FI fees of $2.35/ton (standard FI rate on CLO)

III. IMPACTS ON THE PHYSICAL ENVIRONMENT

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter “NONE” If no impacts are identified or the resource is not present.*

4. GEOLOGY AND SOIL QUALITY, STABILITY AND MOISTURE:

Consider the presence of fragile, compactable or unstable soils. Identify unusual geologic features. Specify any special reclamation considerations. Identify any cumulative impacts to soils.

Detrimental soil impacts resulting from compaction, displacement and erosion would be expected on approximately 15% or less of each harvest unit after harvest completion. Areas of impacts would be localized to primary skid trails, log landing sites and historical disturbances from previous entry. Soil monitoring conducted on soils similar to those in the project area have found that mitigation measures such as winter logging, skid trail spacing, and favorable operating conditions (soil moisture <20%)are effective in meeting soil protection guidelines outlines in the SFLMP (DNRC 2009). If these soil mitigation measures are implemented, low levels of long-term impacts to soil productivity from compaction and displacement are expected due moderate slopes within the project area as well as the resistant nature of the soils in the area (high rock content and coarse textured surface soils).

Within these impacted areas soil productivity would be expected to be reduced for a period of 5-20 years depending on the extent and magnitude of the impacts as well as the natural amelioration rate for the specific location.

0-5 tons/acre of woody material would facilitate retention and accumulation of soil organic matter capital, micro-growing site creation and moisture retention. The proposed actions will have low level effects on soil productivity and nutrient cycling due to the existing low productivity within the project area.

A large portion of the proposed project would reentry previously harvested forest stands. Current levels of disturbance was estimated at approximately <3% of the proposed area and historic impacts are largely isolated to primary skid trails. Due to the proper initial location of these trails they can be reused during the proposed entry with minimal cumulative effects. Due to the low volume of timber harvest planned for harvest within these areas of reentry and the mitigations and BMP's that will be applied during harvest, low amounts of additional impacts are expected. The cumulative sum of soil impacts after the harvest in completed is expected to be between 15-20% and site productivity will be maintained. There is a low risk of moderate cumulative effects to soil resources within the project area and soil productivity is expected to be maintained.

---

5. WATER QUALITY, QUANTITY AND DISTRIBUTION:

Identify important surface or groundwater resources. Consider the potential for violation of ambient water quality standards, drinking water maximum contaminant levels, or degradation of water quality. Identify cumulative effects to water resources.

The proposed project area is located within the Clark Creek and Towhead Gulch watersheds. Both of these watersheds are located in the Upper Missouri River Basin. Clark Creek is a perennial tributary to Little Prickly Pear Creek. Towhead Gulch is an intermittent tributary to Rattlesnake Creek which is an intermittent tributary to Upper Holter Lake. The proposed project area contains the following water resources: 1) Numerous ephemeral draws that do not contain discernable stream channels; 2) Several unnamed intermittent and discontinuous segments of stream channel; 3) Several isolated springs that do not contribute flow to sustained stream channels; 4) Several spring-fed segments of perennial stream channel that are discontinuous with no direct downstream channel connectivity; and 5) one perennial segment of Clark Creek with continuous channelized flow to Little Prickly Pear Creek. The actual proposed harvest units are drained primarily by ephemeral draws with only a couple of isolated segments of discontinuous perennial channel. There is no direct channel connectivity from the immediate harvest area with downstream water resources. The Missouri River drainage including Clark Creek and Towhead Gulch, is classified as B-1 in the Montana Surface Water Quality Standards. The B-1 classification is for multiple use waters suitable for domestic use after conventional treatment, growth and propagation of cold-water fisheries, associated aquatic life and wildlife, and agricultural and industrial uses. Neither Clark Creek nor Towhead Gulch are listed on the 2010 Montana 303(d) list of impaired bodies of water.

Most of the existing roads segments used to access the proposed harvest areas comply with BMPs and are adequately buffered from streams, and therefore are considered low risks to downstream water quality. However, several segments of the existing roads do not currently meet minimum BMPs due to inadequate road surface drainage and inadequate filtration to prevent sediment delivery to streams. Low levels of chronic sediment delivery are occurring at several of these sites; or there is a high risk of sediment delivery during peak runoff events. In addition, several existing culverts crossings of Clark Creek also do not meet minimum BMPs because they are partially filled or obstructed, have inadequate capacity to accommodate a 25 year flood event, and/or have inadequate fill covering and rock armoring. Livestock grazing and subsequent bank trampling is also impacting channel stability and has increased sediment delivery in Clark Creek.

There are low risks of direct or indirect impact to water quality or downstream beneficial uses resulting from the proposed actions. This assessment is based on the following reasons: 1) The proposed new road construction is limited to short isolated segments of low standard road that will require minimal excavation. These segments are located stable hillsides with moderate slopes and are situated well away from any streams or continuous ephemeral drainage features; 2) No new stream crossings are proposed and use of existing stream crossing culverts not currently meeting BMPs is not expected to result in additional impacts to water quality; 3) Most of the existing road complies with BMPs and are adequately buffered from streams, and are considered low risks to downstream water quality; 4) The proposed actions will include improvements to sites not meeting BMPS and identified at risk of sediment delivery. These improvements include installation of additional road surface drainage features and slash filter windrows at outlets of drainage feature not adequately buffered from streams; 5) All new road construction and timber harvest activities will fully implement Forestry BMPs, Forest Management ARMS and the SMZ law; and 7) No timber harvest or operation of ground based equipment is planned within SMZs.

There are low risks of cumulative impacts from increases in sediment yield resulting from the proposed actions. This is due to the low risk of direct and indirect impacts of erosion and sediment delivery as outlined in above. Existing impacts to water quality will likely be reduced with the proposed improvements to the existing road. There are low risks of cumulative watershed impacts due to increased water yields resulting from the proposed actions. The proposed harvests are targeting trees which are dead, dying, or susceptible to insect and disease infestations. Therefore, the proposed levels of forest canopy removal are not expected to be substantially different then what would occur with natural morality under no action. The proposed project area is also located in an area with relatively low levels of precipitation and subsequent low levels of runoff. In addition, the project area is only partially forested; therefore, forest canopy is likely to have very little overall influence on flow regimes. Therefore, no detrimental increases in water yield, and magnitude or duration of peak flows are expected to result from the proposed actions.

---

6. AIR QUALITY:

What pollutants or particulate would be produced? Identify air quality regulations or zones (e.g. Class I air shed) the project would influence. Identify cumulative effects to air quality.

Proposed operations would be for the winter 2011-12. Existing roads are grass covered and would not be bladed bare, except for short segments to install road drainage features. No dust issues are anticipated.

Slash pile burning would produce some short term particulate emissions. DNRC coordinates open burning through the State Airshed Coordinating group, with burns planned and approved for days of acceptable smoke dispersion. No measurable adverse effects are anticipated from slash burning under these procedures.

---

7. VEGETATION COVER, QUANTITY AND QUALITY:

What changes would the action cause to vegetative communities? Consider rare plants or cover types that would be affected. Identify cumulative effects to vegetation.

Mountain Pine Beetle (MPB) has heavily impacted pine stands in the Helena area. The Ponderosa Pine stands scattered through the project area are no exception, and have moderate to heavy mortality, with continued attacks observed in 2011. Tree mortality from the MPB has been ongoing in these stands for at least 3 – 4 years. Local observations are that decay and dead fall will begin to increase noticeably in the near future. Salvage of the dead timber can only be done profitably for a short period into the future. Understory stand changes are already taking place due to the death of the forest overstory. Understory plants, and in some cases noxious weeds, which have been dormant in the understory are beginning to flourish given the available water and sunlight.

The salvage operation would have little effect directly to the forest vegetation, since the stand changes have already been effected by the MPB attack. Some still green patches, thinned as the operations progress, may be protected from future MPB attack.

The Ranch has proposed a joint weed spraying project to follow the harvest, in 2012. DNRC would cooperate proportionately in this project. The ranch requirements are for weed washing of all equipment entering the site. This is also a standard requirement on state projects.

8. TERRESTRIAL, AVIAN AND AQUATIC LIFE AND HABITATS:

Consider substantial habitat values and use of the area by wildlife, birds or fish. Identify cumulative effects to fish and wildlife.

The area is used by Whitetail Deer, Mule Deer, Elk, grouse, bear, numerous bird species, and fish in Clark Creek. Many stand changes have already taken place due to the MPB infestation. Protection of select snags for cavity nesting would maintain habitat for those species. Course woody debris for small mammal habitat will increase due to dead fall without the project, and would still be provided due to stem breakage likely to occur during operations, if the proposal takes place. Operations provide the opportunity to re-install some road surface drainage features (drain dips primarily), to provide ongoing stream protection. No direct adverse impacts to fisheries were observed during site review, but opportunities for improvement and maintenance were noted.

There are no fish-bearing streams or suitable fisheries habitat in that portion of the project area located in Towhead Gulch. No known fisheries surveys have been conducted in Clark Creek. However, during field reviews, brook trout were observed in Clark Creek approximately ½ mile downstream of the proposed harvest area and immediately adjacent to the proposed haul route. There are no fish-bearing streams located within or immediately adjacent to the proposed harvest areas in the Clark Creek watershed. Existing stream crossings culverts on the segment of Clark Creek supporting fish appear to provide some level of fish passage. Existing impacts to fish habitat are primarily due to channel instability and sediment delivery caused by high levels of stream bank trampling by livestock.
No direct, indirect or cumulative impacts to fish or fish habitat resulting from the proposed action are expected occur in Clark Creek or other downstream water resources. No new stream crossing or roads located immediately adjacent to streams are proposed. No SMZ harvest or harvest immediately adjacent to streams area proposed. The proposed action includes improvements to the existing road that are expected to reduce the risk of sediment delivery to streams (see section addressing Water Quality, Quantity and Distribution).

9. UNIQUE, ENDANGERED, FRAGILE OR LIMITED ENVIRONMENTAL RESOURCES:

Consider any federally listed threatened or endangered species or habitat identified in the project area. Determine effects to wetlands. Consider Sensitive Species or Species of special concern. Identify cumulative effects to these species and their habitat.

Grizzly Bear may pass through this project area, though the project is outside of the mapped non-recovery occupied habitat for Grizzly which is being used in the ongoing state HCP analysis.

Gray Wolfs have been known to occupy areas of the Sieben Ranch, and have caused some stock and stock guard dog mortality.

As wide ranging species, some transient use by wolves or Grizzly may take place. Given the scattered arrangement of the operations (State as well as Ranch operations), and the short duration (winter of 2011 – 12), no adverse effects to either of these species are expected.

The DNRC CLO list of threatened, endangered and sensitive species was reviewed and no adverse effects are anticipated. This review checklist is attached.

None of the lands in this proposal are included in the pending HCP.

10. HISTORICAL AND ARCHAEOLOGICAL SITES:

Identify and determine effects to historical, archaeological or paleontological resources.

Portions of the project area have been Class III inventoried previously. Based upon similarity of conditions, the Department Archaeologist did not recommend further review as being necessary. There are some old homestead remains on the private ranch lands, mostly in open areas, which are passed by the existing roads.

Any operations using the existing roads and driving past these would not result in any effects to those resources.

11. AESTHETICS:

Determine if the project is located on a prominent topographic feature, or may be visible from populated or scenic areas. What level of noise, light or visual change would be produced? Identify cumulative effects to aesthetics.

Section 30, T13N, R3W is located along the Interstate highway (either side of mile marker 212). Due to the tree density, and slope, the stand changes from the MPB and the proposed salvage, are only minimally noticeable from this traveled way. The other operations are within the Clark Creek drainage, not visible from any populated or traveled area.

12. DEMANDS ON ENVIRONMENTAL RESOURCES OF LAND, WATER, AIR OR ENERGY:

Determine the amount of limited resources the project would require. Identify other activities nearby that the project would affect. Identify cumulative effects to environmental resources.

None.

13. OTHER ENVIRONMENTAL DOCUMENTS PERTINENT TO THE AREA:

List other studies, plans or projects on this tract. Determine cumulative impacts likely to occur as a result of current private, state or federal actions in the analysis area, and from future proposed state actions in the analysis area that are under MEPA review (scoped) or permitting review by any state agency.

The DNRC has been working cooperatively with the USFWS for several years, to develop a Habitat Conservation Plan (HCP). The lands in this proposal are not included in that review (though some lands north of the project area are included).

DNRC has ongoing grazing leases on these lands, with review and lease evaluations available in section files at DNRC.

IV. IMPACTS ON THE HUMAN POPULATION

- *RESOURCES potentially impacted are listed on the form, followed by common issues that would be considered.*
- *Explain POTENTIAL IMPACTS AND MITIGATIONS following each resource heading.*
- *Enter "NONE" If no impacts are identified or the resource is not present.*

14. HUMAN HEALTH AND SAFETY:

Identify any health and safety risks posed by the project.

In a small way, removal of a portion of the dead MPB killed timber would reduce future hazardous wild fire fuel loading. Due to the scattered forested nature of these stands, and the absence of nearby residential development, this beneficial effect is minimal.

15. INDUSTRIAL, COMMERCIAL AND AGRICULTURE ACTIVITIES AND PRODUCTION:

Identify how the project would add to or alter these activities.

The Ranch has already entered into their timber salvage harvest agreement with the proponent. Their gross operating area is the same as in this proposal, i.e. the lands along the Interstate and in the Clark Creek drainage, all south of the Sieben Canyon road. This proposal would take advantage of these operations to salvage scattered individually small volumes of MPB killed timber on the trust lands. These operations would be less commercially viable (or possible deficit) if conducted at a separate time.

16. QUANTITY AND DISTRIBUTION OF EMPLOYMENT:

Estimate the number of jobs the project would create, move or eliminate. Identify cumulative effects to the employment market.

No measurable effects to employment distribution. Persons are currently employed in the forest products industry in this area and this project has no identifiable effect to the number or distribution of this employment

17. LOCAL AND STATE TAX BASE AND TAX REVENUES:

Estimate tax revenue the project would create or eliminate. Identify cumulative effects to taxes and revenue.

No direct or measurable effects to tax base or revenues.

18. DEMAND FOR GOVERNMENT SERVICES:

Estimate increases in traffic and changes to traffic patterns. What changes would be needed to fire protection, police, schools, etc.? Identify cumulative effects of this and other projects on government services

No changes identified

19. LOCALLY ADOPTED ENVIRONMENTAL PLANS AND GOALS:

List State, County, City, USFS, BLM, Tribal, and other zoning or management plans, and identify how they would affect this project.

No other planning or zoning for this area.

20. ACCESS TO AND QUALITY OF RECREATIONAL AND WILDERNESS ACTIVITIES:

Identify any wilderness or recreational areas nearby or access routes through this tract. Determine the effects of the project on recreational potential within the tract. Identify cumulative effects to recreational and wilderness activities.

The lands are accessible for recreation. One section is accessed by hunters parking along the Interstate highway. All the tracts are accessible at this time due to the Block Management Agreement between the Sieben Ranch and FWP. Persons with a valid State Land Recreational Use Permit, or Conservation License for hunting, fishing or trapping, may recreate on these accessible lands. There has been timber harvest in these areas intermittently during the last 20 – 40 years, with no apparent adverse effect to recreational uses. This project is not expected to have any adverse effect to recreational uses.

21. DENSITY AND DISTRIBUTION OF POPULATION AND HOUSING:

Estimate population changes and additional housing the project would require. Identify cumulative effects to population and housing.

No effects identified.

22. SOCIAL STRUCTURES AND MORES:

Identify potential disruption of native or traditional lifestyles or communities.

No effects identified.

23. CULTURAL UNIQUENESS AND DIVERSITY:

How would the action affect any unique quality of the area?

No effects

24. OTHER APPROPRIATE SOCIAL AND ECONOMIC CIRCUMSTANCES:

Estimate the return to the trust. Include appropriate economic analysis. Identify potential future uses for the analysis area other than existing management. Identify cumulative economic and social effects likely to occur as a result of the proposed action.

Estimated value of saw log stumpage to the trusts would be approximately $4375. Forest Improvement fees would also be assessed on sawlog material. Some added stumpage from pulp material utilized would also go to the trusts.

Estimated timber volume (tonnage) is low, approximately 2500 tons of sawlog material anticipated. The site productivity on these tracts, for timber production is low in general. Past timber sales and permits have removed some volume as uneven-aged operations. Other areas not previously entered were considered not commercially viable at the time. Due to unexpected levels of MPB mortality, periodic annual increment in the existing stands is substantially reduced. Future forest stand growth will be a function of existing tree regeneration not killed by MPB at this time, and any protective effect from thinning to green patches of trees still present. The material killed by the MPB will be commercially viable for sawlog salvage for a very limited time into the future.

EA Checklist Prepared By:	**Name:** D.J. Bakken	**Date:** 11/xx/2011
	Title: Helena Unit Manager	

V. FINDING

25. ALTERNATIVE SELECTED:

I have selected the alternative to issue a timber permit to the proponent at the negotiated stumpage prices.

26. SIGNIFICANCE OF POTENTIAL IMPACTS:

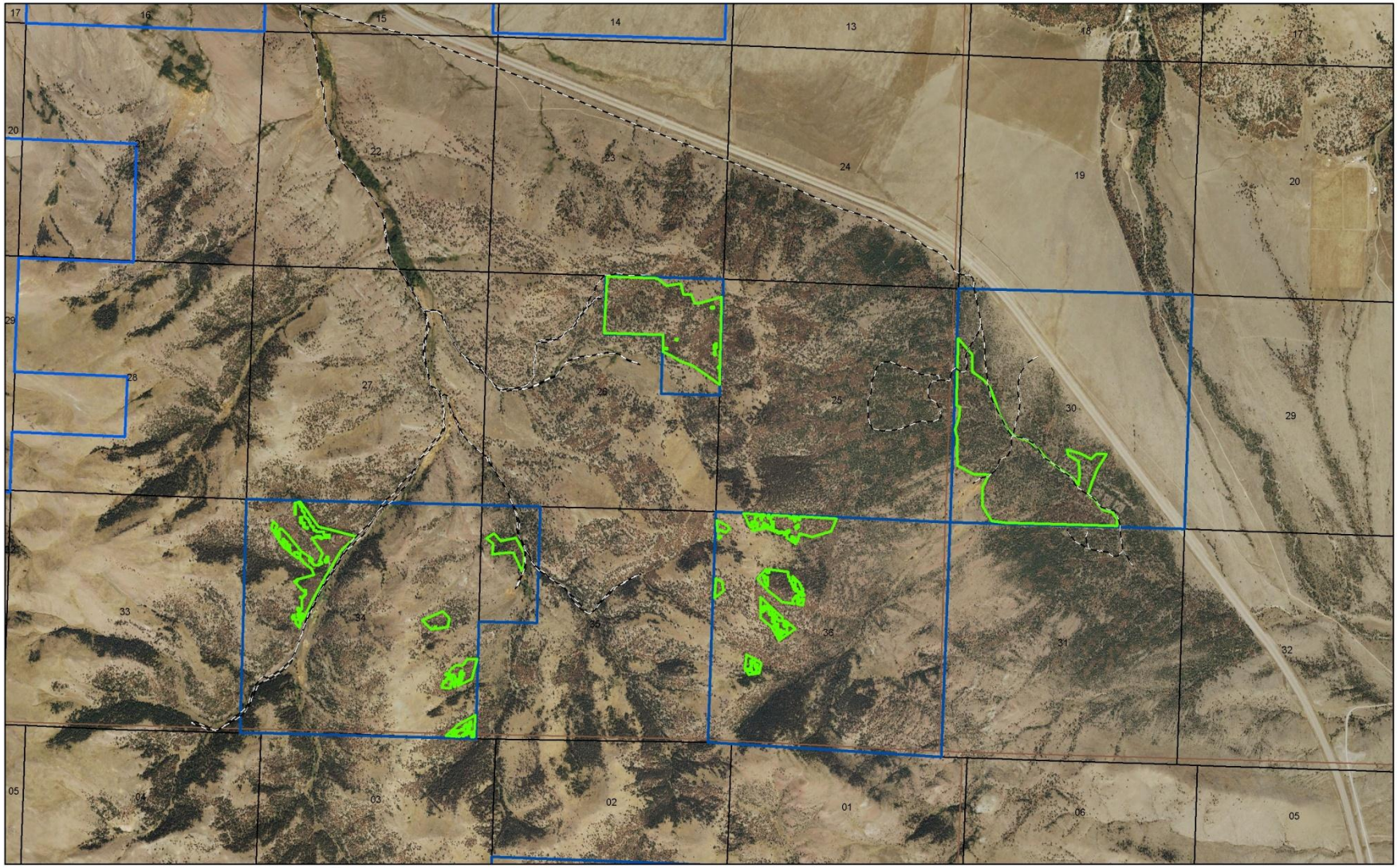
Significant impacts are not expected as a result of implementing the proposed activity. There are no unique resources or habitats associated with the project area which would indicate anything but short term or minor impacts would occur as a result of the harvest actions. There are hundreds of thousands of forested acres affected by the mountain pine beetle epidemic and even with aggressive salvage of beetle killed timber, only a very small percentage of the infested timber is being harvested. The project area is appropriate for timber harvest and normal, regularly applied mitigation measures (BMPS) will be effective in minimizing impacts.

27. NEED FOR FURTHER ENVIRONMENTAL ANALYSIS:

[ ]	EIS	[ ]	More Detailed EA	[X]	No Further Analysis

EA Checklist Approved By:	**Name:** Garry Williams	
	Title: CLO Area Manager	
Signature: 		**Date**: 11/15/2011

Dead Pine Clark



CHECKLIST FOR ENDANGERED, THREATENED AND SENSITIVE SPEICES
Pertains to Section II. 9. of the DS-252 DNRC Environmental Checklist
(Rev. August 1, 2007)
CENTRAL LAND OFFICE

Threatened and Endangered Species	[Y/N] Potential Impacts and Mitigation Measures N = Not Present or No Impact is Likely to Occur Y = Impacts May Occur (Explain Below)
Gray Wolf (*Canis lupus*) Habitat: ample big game pops., security from human activity	[Y/N] May pass through the area, not likely to be affected due to scattered operations and short duration
Grizzly Bear (*Ursus arctos*) Habitat: recovery areas, security from human activity	[Y/N] May pass through the area, not likely to be affected due to scattered operations and short duration. Is outside the mapped non-recovery occupied area.
Lynx (*Felis lynx*) Habitat: mosaics--dense sapling and old forest >5,000 ft. elev.	[N]

DNRC Sensitive Species	[Y/N] Potential Impacts and Mitigation Measures N = Not Present or No Impact is Likely to Occur Y = Impacts May Occur (Explain Below)
Bald Eagle (*Haliaeetus leucocephalus*) Habitat: late-successional forest <1 mile from open water	[Y/N] Some transient fly over activity, but no known nest sites and project is not near typical nesting areas.
Black-Backed Woodpecker (*Picoides arcticus*) Habitat: mature to old burned or beetle-infested forest	[N] No nearby fires. Abundant MPB mortality would remain even after a salvage harvest.
Black-tailed Prairie Dog (*Cynomys ludoviscianus*) Habitat: Prairie, shortgrass prairie, badlands	[N]
Flammulated Owl (*Otus flammeolus*) Habitat: late-successional ponderosa pine and Doug.-fir forest	[N] Most of these stands are scattered stands at the edge of forested zones. MPB mortality has altered stand conditions regarding tree stocking levels and salvage not likely to add to this effect.
Greater Sage-grouse (*Centrocercus urophasianus*) Habitat: sagebrush semi-desert	[N]
Harlequin Duck (*Histrionicus histrionicus*)	[N]

Habitat: white-water streams, boulder and cobble substrates	
Mountain Plover (*Charadrius montanus*) Habitat: short-grass prairie, alkaline flats, prairie dog towns	[N]
Northern Bog Lemming (*Synaptomys borealis*) Habitat: sphagnum meadows, bogs, fens with thick moss mats	[N]
Peregrine Falcon (*Falco peregrinus*) Habitat: cliff features near open foraging areas and/or wetlands	[N]
Pileated Woodpecker (*Dryocopus pileatus*) Habitat: late-successional ponderosa pine and larch-fir forest	[N]
Townsend's Big-Eared Bat (*Plecotus townsendii*) Habitat: caves, caverns, old mines	[N]